

A. Control Measure under Consideration	B. Summary Description of Measure	C. Program/Measure Status	D. Specific Implementation Date	E. VOC Reduction	F. NOx Reduction	G. Resources (FTE's, \$\$)	H. Additional Information
<b>DECEMBER 2006</b> <b>CHARLESTON COUNTY</b> <b>Based on stakeholder consultation and taking into consideration resource and political constraints, the following emission reduction strategies remain under consideration. The County will continue to evaluate the air quality within the county and may implement one or more of the following measures under consideration.</b>							
Appoint an Ozone Action Coordinator to alert media and public on high ozone days.	Larry Hodge, Risk Manager, monitors DHEC website, and coordinates with County Public Information Office to notify county departments when local levels are elevated; and with Radio Communication Manager to alert field employees. (Note: currently DHEC does not do forecasts for the Lowcountry.) Information also is included on County website, for public access. When DHEC alerts are available for this area, PIO will coordinate media notifications. Ozone action alerts will be posted to the Amber Alert System, if local levels reach the warning or action stage.	No ozone forecasts provided for Charleston County	Begun with 2003 Forecast Season	n/a directionally sound	n/a directionally sound	n/a	See Comment #3
Add Ozone Alert to Emergency Information on County website.	Public Information Office has added Ozone Danger information to Emergency Information section of County web-site (www.charlestoncounty.org). Information links to DHEC Spare the Air Ozone Forecast and to EPA informational sites. Ozone reduction measures and information are included.		2003 Forecast Season - completed	n/a directionally sound	n/a directionally sound	n/a	See Comment #3
Increase opportunity for residents and businesses to conduct electronic transactions with the county, eliminating drive time.	The county website allows residents to conduct a great deal of County business on-line, thus eliminating vehicle trips to County office locations. E-business opportunities are being expanded constantly.	Now available: research property records, deeds/mortgages, tax records, court records, marriage license, estate/wills; pay taxes on-line; request building inspection; submit public work order request; apply for jobs; renew a business license; obtain county bid solicitations, and more. Links to hundreds of related websites.	Initial phase completed; on-line services added monthly	n/a directionally sound	n/a directionally sound	n/a	See Comment #3
Promulgate list of strategies to local government entities.	The County will share its strategies with local government entities within the county to promote regional efforts and encourage similar actions at the municipal level		FY 2004	n/a directionally sound	n/a directionally sound	n/a	See Comment #3
Develop and implement an ozone public education plan.	Charleston County, through its Public Information Office and Safety and Risk Management Office, has implemented a comprehensive public information campaign related to health impacts of ground-level ozone, and strategies to reduce ozone producing emissions. This addresses best driving practices, fueling, vehicle maintenance, lawn mowing, consumer education, healthy lifestyle and environmental changes, and other measures. If funding or private partnerships are identified, programs to test gas caps and provide replacements, or others, will be implemented. Information is disseminated through newsletters, website, public service announcements and public events, and at county facilities.	Distributed material made available by SCDHEC related to Driving Smarter and Things You Can Do For Cleaner Air; also Car Care Awareness, and seasonal bookmarks and flyers. Material provided to County employees, and to the public at the information desk of the Public Services Building. Participated in Bike to Work Week in May 2006. Coordinated an Earth Day Festival with other environmental agencies in May 2006. <b>Made Energy Star Change a Light pledge information available to County employees during September, 2006. Two employees from our Fleet Management and Planning offices attended the 2006 SC EAC Summit in Columbia in August, 2006, and returned with helpful information on energy conservation, land use planning, and alternative fuels.</b>	Efforts begun in 2004	n/a directionally sound	n/a directionally sound	n/a	
Expand use of hybrid cars.	Charleston County currently has one hybrid car in its fleet, a Honda Civic used by the Solicitor (1.3-liter 4 cylinder gasoline engine with a 10-kilowatt electric motor). Fuel efficiency is estimated at 46/51 city/highway miles per gallon. As funding allows, additional hybrid vehicles will be added to the fleet where use and mileage history provide a suitable fit. It is recognized such replacement would impact four cost centers: replacement, training, shop equipment and operating (parts) costs. Implementation will be dependent on commitment to and availability of funding.	In FY 2006 one additional hybrid Honda Civic was purchased for the Solicitor's Office. A barrier to growing our hybrid fleet is limited availability and omission of these vehicles on state procurement contracts. In April 2006 Charleston County submitted a grant application to the SC Budget and Control Board for sufficient funding to cover the cost difference between purchasing 15 standard gasoline-fueled vehicles on state contract, and the cost of 15 hybrid mid-size sedans. If funding is received, these hybrids will be provided to high-mileage users within the County work-force. (No grant funding received as of 12/06.) It is noted that the Ford Escape Hybrid is now available on state contract. Vehicle requests for FY08 will be evaluated to determine if this vehicle would be suitable for requested use.	FY2005	n/a directionally sound	n/a directionally sound	n/a	
Implement criteria to evaluate departmental vehicle requests.	Charleston County has developed criteria to evaluate vehicle requests, which include consideration of miles driven, and industry standards based on user requirements. The goal is to 'right-size' the county fleet, considering both the number of vehicles and the size and/or type of vehicle.	Criteria is in place and was utilized to evaluate requests for FY'07. For FY'06, 'pools' of multi-user vehicles replaced individually assigned vehicles; and home garaging has been restricted.	FY2005	n/a directionally sound	n/a directionally sound	n/a	
Include vehicle fuel economy and emission ratings in procurement	Fuel efficiency and emission ratings are included in specifications for procurement of vehicles.		FY2005	n/a directionally sound	n/a directionally sound	n/a	
Purchase vehicles and light trucks to meet new EPA standards on emissions.	The EPA has announced more protective tailpipe emission standards for all passenger vehicles, including sport utility vehicles, vans and pick-up trucks. The agency also has developed lower standards for sulfur in gasoline which will require passenger vehicles to be significantly cleaner. Both took effect beginning in 2004. Charleston County is complying with the new standards as they are phased in and as we replace vehicles.	Fleet focus is on flexible-fuel vehicles, to be staged to use ethanol when available (see below).	FY2004	n/a directionally sound	n/a directionally sound	n/a	
Purchase replacement diesel heavy-duty highway trucks, as needed, which comply with most recent EPA standards for PM and NOx emissions, and which utilize low sulfur diesel fuel.	The EPA has developed heavy-duty engine and vehicle emission standards and highway diesel fuel sulfur control requirements which took effect with the vehicle model year 2007. As replacements are needed, Charleston County is complying with the EPA requirements.		FY2004	n/a directionally sound	n/a directionally sound	n/a	
To meet EPA requirements, convert to use of low-sulfur gasoline.	The County has run its heavy equipment on low sulfur diesel fuel since it entered the supply stream. We elected to maintain only one fuel type rather than risk putting the incorrect fuel in the highway trucks.	<b>As of October 1, 2006, the County has converted to exclusive use of Ultra Low Sulfur Diesel Fuel for all its diesel engines in vehicles and equipment.</b>	FY2004	n/a directionally sound	n/a directionally sound	n/a	
Consider pilot/test of bio-diesel fuel for limited vehicle use.	In conjunction with area fleets and diesel users (ex.: CARTA, school district), County fleet staff may test a B20 bio-diesel fuel in designated vehicles. A tank for joint use would be established in the Azalea Road area, filled by a local supplier with a soy-diesel mix. Cost subsidies are being investigated to promote this project. It is recognized that bio-diesel fuels increase lubricity and engine efficiency; and also lower particulate matter although increasing NOx emissions.	In April 2006 Charleston County submitted a grant request to the SC Budget and Control Board for funding to create an above-ground tank and infrastructure to be dedicated to biodiesel/low sulfur diesel fuel; and also for supplemental funding for the higher cost of biodiesel in place of the 620,000 gallons of diesel fuel used by the County yearly. <b>July 2006 newspapers reported that Southeast BioDiesel is developing a biofuels processing plant on the former Navy base in N.Charleston, to convert old vegetable oil into an alternative fuel.</b>	FY2007	n/a directionally sound	n/a directionally sound	n/a	
Develop Best Practices for driving and fleet fueling.	Working with involved departments, staff formulated Best Operational Practices for driving and fueling County fleet. While these may be related to ozone reduction, they are applicable throughout the year. They encourage fueling early or late, limiting idling, frequent tire pressure checks, driving at the speed limit, no topping off gas tank, etc. Department heads incorporate BOPs into operating procedures to the extent feasible		FY2004	n/a directionally sound	n/a directionally sound	n/a	

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Addressing public transit options, pedestrian and bike lanes and other planning strategies in comprehensive land-use planning.	Charleston County has adopted a comprehensive land use plan, which is updated every five years. As appropriate, this plan encourages the development of mass transit opportunities, trip reduction, alternative transportation methods and mixed-use communities.	Related to the Charleston County Transportation Sales Tax (1/2 cent), the Transportation and Greenbelt Advisory Boards have completed their recommendations to County Council on projects to be funded by the tax. (Reports can be accessed through the county website: <a href="http://www.charlestoncounty.org">www.charlestoncounty.org</a> .) Both boards found a high interest in walking and biking trails. These boards recommend spending plans for the \$1.3 billion to be collected over 25 years for transportation, greenbelt and public transit. The Comprehensive Greenbelt Plan has been awarded the 2006 Outstanding Planning Award for Large Jurisdictions by the SC Chapter of the American Planning Association. In Fall 2006, the County Greenbelt Bank was created, to leverage the approximate \$110 million in sales tax revenue dedicated to acquiring land in rural areas for conservation purposes, and to administer the rural grants program. Also, in November County voters approved two bond referenda to allow the county to borrow against the tax to provide immediate funding for sales tax projects.	FY2004	n/a directionally sound	n/a directionally sound	n/a	
		The Charleston Area Regional Transportation Authority (CARTA) has used the first infusion of Sales Tax money to purchase smaller buses for local routes, and has increased the number of routes. Ridership has increased significantly. The CARTA Board now is contracting for park/ride spaces to increase convenience for commuting. Over the 2006 summer, CARTA implemented Free Ride Fridays and hosted other rider appreciation events to promote ridership and entice new riders to try the system. According to Authority statistics, more than 58,000 people participated in the promotions.					
Modify lawn maintenance practices to discourage use of gas-powered engines during high ozone hours; and develop department guidelines to replace two-cycle small engines with four-cycle engine small equipment.	Charleston County will take measures to modify lawn maintenance practices and utilization of small engine equipment so as to limit ozone-producing emissions. Most County lawn maintenance is under private contract. The RFP will be amended to include clean air practices during the next bidding cycle. Many departments maintain small engine equipment for specific purposes. Two-cycle equipment will be replaced with four-cycle when practical.	Fall 2006, six large generators were purchased for the County, all required to run on ultra low sulfur fuel. Existing generators have been changed to this new fuel.	FY2007	n/a directionally sound	n/a directionally sound	n/a	
Employ building energy conservation measures.	With the use of technology, Charleston County's Facilities Management team currently employs energy conservation measures at its high use facilities (the Public Services Building, Judicial Center, County Office Building, Charleston Center, Main Library, and the Historic Courthouse) by scheduling down time of utilities when unoccupied or reducing utility services when not required. This program has been expanded to include all Regional Libraries and any new large facilities coming on line. An HVAC control system has been installed in the Otranto Regional Library and the new Johns Island Regional Library. Where ever possible, new energy efficient light bulbs (T-8s and low pressure sodium) are being used. Energy audits are conducted for our large facilities either in-house or by contract. We use premium efficient components when replacement parts are required for condensers, compressors, hot water heaters, motors, etc.	Fall 2006, exhaust fans have been installed in the County's two parking garages for better ventilation.	FY2004	n/a directionally sound	n/a directionally sound	n/a	
Study and implement flex hours.	Charleston County has expanded the practice of flexible hours, which is now utilized by many departments. This has reduced traffic congestion and vehicle emissions created by all employees arriving and leaving at the same time.	The final report of the independent Charleston County Commission on Management, Accountability and Performance, released in August 2005, recommended increased use of flex time as a way to extend public service hours and improve employee working environment. In response, both the Business License and Human Resources departments have implemented flex-time schedules, thus 'growing' the number of County offices utilizing this tool.	FY2004	n/a directionally sound	n/a directionally sound	n/a	
Encourage walking, biking, car-pooling	Bike racks are installed at County libraries, and at the Judicial Center complex in downtown Charleston. Additional racks will be installed at other facilities. As part of the ozone education program, employees will be encouraged to walk or bike to work, and/or to look for safe opportunities to ride-share or car-pool.	Our in-house survey of carpooling interest continues on the intranet. To date, there have been 55 responses. Respondents are matched by area, and encouraged to carpool. The County Wellness Committee met with our regional transportation authority (CARTA) to promote bus use through sale of bus passes. The Wellness Committee participated in Ride Your Bike to Work Week. Fall 2006, a bike rack is now in place at the Public Services Building, and is used regularly. The front of the building is now a CARTA bus stop.	FY 2005	n/a directionally sound	n/a directionally sound	n/a	
Other activities within the County	The City of Charleston is enrolled in the Cities for Climate Protection campaign, and has joined the U.S. Mayors Climate Protection Agreement, working with the Sierra Club to find ways to reduce greenhouse gases.	Energy saving improvements have reduced municipal carbon dioxide emissions by 15,219 tons over the first four years of the effort. During Fall 2006, the League of Women Voters of the Charleston Area hosted a viewing and discussion of Kilowatt Ours; and the Urban Land Institute held an 'Everything Coastal' Conference	FY2000				
Formation of regional stakeholders group.	Charleston County meets with BCD Council of Governments, Berkeley and Dorchester Counties, urban and rural transportation authorities, Clemson Extension, MUSC, school districts, area industry, environmental groups and others. Discussions center on education, transportation, intermodal/alternative transportation strategies, advanced technology vehicles, alternative fuels, car-pooling and use of public transit, development of park and ride facilities to complement public transit routes, etc. This group continues to evolve and grow. We have met on the following dates: July 24, August 14, September 18 and November 13. in 2003; and February 26 in 2004.	The regional stakeholder group has not met during this period. However, the in-house planning group continues to meet to plan implementation of our strategies to fulfill our requirements. Current focus is on an expanded hybrid fleet, use of clean fuels, and reducing fleet size and emissions.	FY2004	n/a directionally sound	n/a directionally sound	n/a	

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<p><b>Comments:</b></p> <p>1. December 2004 - SC EAC SIP - activity not quantified for several reasons (first) in accordance with EAC Protocol, after all adopted Federal and State controls were accounted for in the modeling, it was determined that local controls were not necessary to demonstrate attainment of the 8-hour ozone standard. Measures were submitted by the local areas to show their continued support and commitment to the EAC process. (second) this activity is directionally sound and should provide air quality benefits and in some cases measurable results. The progress toward implementing this activity and the benefits derived will be documented as a part of the ongoing reporting requirements.</p> <p>2. December 2003 - Progress Report - See - <a href="http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac.html">http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac.html</a> - additional information provided by the county to include "findings", "advantages/disadvantages", "recommendations", "costs", etc....</p> <p>3. March 2004 - Local Early Action Plan - See - <a href="http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_0304.asp">http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_0304.asp</a></p> <p>4. June 2004 - Progress Report - See - <a href="http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_0604.asp">http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_0604.asp</a></p> <p>5. December 2004 - Progress Report - See - <a href="http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_1204.asp">http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_1204.asp</a></p> <p>6. December 2004 - SC EAC SIP - Including Appendix 8 (Local Early Action Plans and the Air Quality Awareness and Improvement Policy) and Appendix 16 (County Level Emission Reductions and Descriptions for the Ozone EAC Areas) - See - <a href="http://www.scdhec.gov/eqc/baq/html/eap_sip.html">http://www.scdhec.gov/eqc/baq/html/eap_sip.html</a></p> <p>7. April 20, 2005 - Correspondence to Mr. Palmer including clarifying supplemental information to the EAC SIP submittal of December 2004. - See - <a href="http://www.scdhec.gov/eqc/baq/html/eap_sip.html">http://www.scdhec.gov/eqc/baq/html/eap_sip.html</a></p> <p>8. June 2005 - Progress Report - See - <a href="http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_0605.asp">http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_0605.asp</a></p>							